

Docket No. AT9-98-920

**CLAIMS:**

What is claimed is:

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1. A method of processing a source code statement  
written in a programming language, the method comprising  
the computer-implemented steps of:  
parsing a document type definition file for a markup  
language;  
10 parsing a source code statement from a source code  
file;  
selecting an element defined in the document type  
definition file based on an association between the  
element and an identifier of a routine in the source code  
15 statement; and  
writing the selected element to a markup language  
file.
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2. The method of claim 1 wherein the source code  
statement comprises parameters for the routine and  
wherein the element comprises an attribute list  
corresponding to the parameters.
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3. The method of claim 2 wherein the selected element  
written to the markup language file comprises an  
attribute list of values for the parameters passed to the  
routine.
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4. The method of claim 1 wherein the routine is a  
procedure, subroutine, function, method, class, or  
software object.
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5. A method of processing a markup language element, the method comprising the computer-implemented steps of: parsing a document type definition file for the

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    parsing a markup language element from a markup
language file;

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generating a source code statement using an identifier of a routine within the selected element; and writing the source code statement to an output file.

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    executing an application program;
    parsing a document type definition file for a markup
language;
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writing the selected element to a markup language  
file.

7. The method of claim 6 wherein the element comprises an attribute list corresponding to parameters for the routine.

30 8. The method of claim 6 wherein the selected element  
written to the markup language file comprises an

~~attribute list corresponding to values for the parameters  
passed to the routine.~~

10. The method of claim 9 wherein the routine is an extended class method.

12. A data processing system for processing a source code statement written in a programming language, the data processing system comprising:

first parsing means for parsing a document type definition file for a markup language;

second parsing means for parsing a source code statement from a source code file;

20       · selecting means for selecting an element defined in  
the document type definition file based on an association  
between the element and an identifier of a routine in the  
source code statement; and

writing means for writing the selected element to a  
25 markup language file.

13. The data processing system of claim 12 wherein the  
source code statement comprises parameters for the  
routine and wherein the element comprises an attribute  
list corresponding to the parameters.

14. The data processing system of claim 13 wherein the selected element written to the markup language file comprises an attribute list of values for the parameters passed to the routine.

15. The data processing system of claim 12 wherein the routine is a procedure, subroutine, function, method, class, or software object.

second parsing means for parsing a markup language  
15 element from a markup language file;  
selecting means for selecting an element defined in  
the document type definition file that is equivalent to  
the markup language element from the markup language  
file;

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17. A data processing system for generating a markup language file, the data processing system comprising:  
 executing means for executing an application program;

30 parsing means for parsing a document type definition  
file for a markup language;

selecting means for selecting an element defined in the document type definition file based on a routine called by the application program; and

18. The data processing system of claim 17 wherein the element comprises an attribute list of parameters for the routine.

19. The data processing system of claim 17 wherein the selected element written to the markup language file comprises an attribute list of values for the parameters passed to the routine.

20. The data processing system of claim 17 wherein the application program is written in Java programming language.

22. The data processing system of claim 20 wherein the routine is a Graphics class method.

23. A computer program product in a computer readable medium for use in a data processing system for processing a source code statement written in a programming language, the computer program product comprising:

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30      first instructions for parsing a document type
      definition file for a markup language;\
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second instructions for parsing a source code
statement from a source code file;
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fourth instructions for writing the selected element  
to a markup language file.

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first instructions for parsing a document type
15 definition file for the markup language;

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third instructions for selecting an element defined  
in the document type definition file that is equivalent  
20 to the markup language element from the markup language  
file;

25       fifth instructions for writing the source code  
statement to an output file.

25. A computer program product on a computer readable medium for use in a data processing system for processing a markup language file, the computer program product comprising:

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first instructions for executing an application program;

second instructions for parsing a document type definition file for a markup language;

- 5        third instructions for selecting an element defined in the document type definition file based on a routine called by the application program; and
- fourth instructions for writing the selected element to a markup language file.

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26. A method of processing a source code statement written in a programming language, the method comprising the computer-implemented steps of:

- 15        parsing a grammar input file for a markup language;
- parsing a source code statement from a source code file;

- selecting a language syntax construct defined in the grammar input file based on an association between the language syntax construct and an identifier of a routine
- 20        in the source code statement; and

       writing the selected language syntax construct to a markup language file.

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